

AMENDMENTS

The following listing of claims will replace all prior versions, and listings, of claims in the captioned patent application.

Listing of Claims

- B1
1. (Currently Amended) A method for managing biological information related to a biological experiment ~~information~~ comprising: ~~the steps of:~~
 - (a)——providing one or more identifiers related to the use of a probe array used to acquire the biological information;
 - (b)——receiving a specification of an attribute for at least one of the one or more identifiers;
 - (e)——generating a data template including at least one of the one or more identifiers, wherein the data template is configured to receive a value for each at least one identifier, said value representing ~~which represents~~ the attribute specified for that identifier for the biological experiment; and
 - (d)——receiving by the data template a value for the at least one identifier in accordance with the attribute specified for the identifier.
 2. (Currently Amended) The method of claim 1, further comprising:
 - (e)——storing the value for the at least one identifier in a data structure.
 3. (Original) The method of claim 2, wherein:

the data structure is included in a database.
 4. (Currently Amended) The method of claim 1, wherein:

the one or more identifiers comprise biological experiment identifiers and the data templates comprise ~~an~~ a biological experiment data template.

B1
5. (Previously Presented) The method of claim 1, wherein:

the one or more identifiers comprise sample identifiers and the data template comprises a sample data template.

6. (Currently Amended) The method of claim 1, wherein:

the data structure comprises an experiment information file for storing the information related to the biological experiment.

7. (Currently Amended) The method of claim 1, further comprising:

(e)-displaying, prior to receiving a value for the at least one identifier, ~~step (d)~~, the data template to a first user.

8. (Original) The method of claim 7, wherein:

the value is provided by the first user responsive to displaying the data template.

9. (Original) The method of claim 7, wherein:

the value is provided by the first user in accordance with a first type attribute.

10. (Currently Amended) The method of claim 9, wherein:

the first type attribute is comprises one or more of the group consisting of a date attribute, time attribute, integer attribute, floating point data attribute, character string attribute, required attribute, or controlled attribute.

11. (Original) The method of claim 10, wherein:

the value is provided by the first user in accordance with a required attribute.

12. (Original) The method of claim 11, wherein:

the required attribute specifies that the value is either required or not required to be received.

13. (Original) The method of claim 10, wherein:
the value is provided by the user in accordance with a controlled attribute.
14. (Original) The method of claim 13, wherein:
the controlled attribute specifies that the value is to be one or more of a plurality of user-specified values specified by a second user.
15. (Original) The method of claim 14, wherein:
the first and second users are different users.
16. (Currently Amended) The method of claim 2, further comprising: including the step of:
(f)——storing instrument information for at least one instrument in the data structure, wherein the instrument is included in an experiment related to the probe array.
17. (Currently Amended) The method of claim 2, further comprising: including the step of:
(f)——storing image data in the data structure, wherein the image data is based, at least in part, on scanning of the probe array.
18. (Currently Amended) The method of claim 17, further comprising: including the step of:
(g)——analyzing the image data to generate results data; and
(h)——storing the results data in the data structure.
19. (Currently Amended) The method of claim 18, further comprising: including the step of:
(i)——tracking the value, the image data, and the result data.

B1
20. (Currently Amended) A method for managing biological experiment information generated through the performance of ~~an~~ a biological experiment with probe arrays, the method comprising the steps of:

- (a)——receiving from a first user a selection of a first data template having a plurality of identifiers each identifying an attribute of the biological experiment;
- (b)——displaying the first data template to the first user in response to the selection;
- (c)——receiving from the first user values for one or more of the identifiers of the first data template in accordance with the attributes identified by the one or more identifiers; and
- (d)——saving the values in a data structure.

21. (Currently Amended) The method of claim 20, wherein ~~the receiving step comprises the steps of: receiving a selection of a first data template comprises:~~

- (1) displaying a list of names of a plurality of data templates; and
- (2) receiving from the ~~first use,~~ first user, a selection of one of the displayed list of names a name of the first data template.

22. (Original) The method of claim 21, wherein:

the plurality of data templates include one or more default data templates.

23. (Original) The method of claim 21, wherein:

the list of names is displayed to the first user in a tree structure of a graphical user interface.

24. (Original) The method of claim 24, wherein:

the data structure includes an experiment information file.

25. (Original) The method of claim 24, wherein:

the experiment information file is included in a database.

B1
26. (Currently Amended) The method of claim 20, further comprising: ~~the step of:~~

(e)——generating the first data template based, at least in part, on a second user specifying the plurality of identifiers.

27. (Currently Amended) The method of claim 26, further comprising: ~~the step of:~~

(f)——generating the first data template based, at least in part, on a second user specifying the attributes of the plurality of identifiers.

28. (Original) The method of claim 27, wherein:

the first and second users are different users.

29. (Currently Amended) A computer program product, comprising:

(a)——a template generator that generates a data template including one or more identifiers of a biological experiment with probe arrays, each identifying an attribute of the experiment;

(b)——a value receiver that receives values for the identifiers in accordance with their attributes; and

(c)——a data storage manager that stores the values in a data structure;
wherein the values are based on one or more experiments on one or more probe arrays.

30. (Original) The computer program product of claim 29, wherein:

the identifiers include experiment identifiers and the data template includes an experiment data template.

31. (Original) The computer program product of claim 29, wherein:

the identifiers include sample identifiers and the data template includes a sample data template.

B1
32. (Original) The computer program product of claim 29, wherein:
the data structure includes an experiment information file.

33. (Original) The computer program product of claim 29, wherein:
the template generator generates the data template in response to a first user
specifying at least one of the one or more identifiers.

34. (Original) The computer program product of claim 29, wherein:
the template generator generates the data template in response to a first user
specifying at least one attribute of the one or more identifiers.

35. (Original) The computer program product of claim 33, wherein:
the data template is selected by a second user.

36. (Original) The computer program product of claim 29, wherein:
the data storage manager further stores instrument information regarding at least one
instrument in the data structure, wherein the instrument is included in the one or more
experiment.

37. (Original) The computer program product of claim 29, wherein:
the data storage manager further stores image data in the data structure, wherein the
image data is based, at least in part, on scanning of the one or more probe arrays.

38. (Currently Amended) The computer program product of claim 29, further comprising:
including:

(d)—an analysis application that analyzes the image data to generate results data;
and
wherein the data storage manager further stores the results data in the data structure.

B1
39. (Original) A computer implemented system for managing information of probe array experiments, comprising:

- a computer-readable storage medium;
- a database;
- a data template generator coupled to the computer-readable storage medium; and
- an experiment manager coupled to the computer-readable storage medium and the data base,

wherein the data template generator generates at least one user-defined data template and stores the user-defined data template on the computer-readable storage medium, each user-defined data template defining attributes of a set of experiment identifiers, a data template being selected from the at least one user-defined data template by a user using the experiment manager, experiment identifiers being inputted using the experiment manager according to the selected data template, the inputted experiment identifiers being stored in the database as an experiment information file.

40. (Original) The system of claim 39, wherein:

- instrument information is included in the experiment information file.

41. (Original) The system of claim 39, further comprising:

- a data processor, coupled to the database, for acquiring experiment data and storing the experiment data as an experiment data file in the database, a data analyzer, connected to the database, for analyzing the experiment data, generating analyzed result files, and storing the analyzed result files in the database; and

- a file manager for tracking the experiment information file, the experiment data file, and the analyzed result files.

42. (Original) The system of claim 41, wherein:

- the experiment data file is an image file.

61
43. (Original) The system of claim 41, wherein:

the file manager tracks the experiment information file, the experiment data file, and the analyzed result files according to the file names.

44. (Original) A computer implemented system for managing information of probe array experiments, comprising:

a computer-readable storage medium having at least one default data table stored thereon;

a database;

a data template generator coupled to the computer-readable storage medium; and

an experiment manager coupled to the computer-readable storage medium and the database;

wherein the data template generator generates at least one user-defined data template and stores the user-defined data template on the computer-readable storage medium, each user-defined data template defining the attributes of a set of experiment identifiers, a data template being selected from the group consisting of the default data table and the user-defined data template by a user using the experiment manager, experiment identifiers being inputted using the experiment manager according to the selected data template, the inputted experiment identifiers being stored in the database as an experiment information file.
